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EFFECTS OF FIELD SHELTER ON LAMB SURVIVAL

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Introduction

An erosion of energy reserves from an undernourished or low-birth weight lamb by the combined influence of weather elements is recognised as contributing to the incidence of death in neo-natal lambs. Such weakling stock might be at risk even in apparently moderate weather conditions such as those generally encountered in South-East England (Starr 1981)

The enforced use of shelter by ewes and lambs has been noted (Egan et al 1972, Lynch et al 1980) to be a major contributing factor in reducing such neo-natal mortality. Indeed, Cresswell and Thomson (1964) found that even a small amount of shelter afforded by 'tussocky' pasture could be important for lambs. (Bird 1978,79) remarks on the rôle of dry stone walls in sheltering a hill flock).

The aim of this lowland study in 1980 was to investigate the efficacy of simply constructed field shelters to which ewes and their lambs had voluntary access.

Treatments and method

The field chosen for the shelter study at Rushall farm, Bradfield near Reading was some 19ha (48 acres) in area. It was surrounded by low hedges on the south-west, south-east and north-east sides with woodland to the north.

This field, Oaktree Meadow, (see sketch) was sub-divided for the trial by electric fences into two similarly situated 8ha (20 acre) fields (west & east) lying roughly between the 60 and 75 metres a.s.l contours (the remaining 3.2ha area to the north was not used in this investigation).

Two field shelters consisting of large hessian-covered cross-barriers of diameter 10m were provided in the western part of the Meadow, no artificial shelter being offered in the eastern part.

Twin lambs were weighed, tagged and each day turned out from covered lambing accommodation, equal numbers being allocated to the adjacent halves of the Meadow until 100 ewes with their lambs occuppied each half. Post mortems were carried out on lambs that died in the first four weeks after turn-out and 'stress involved' deaths indicated.

Results

The mild spring of 1980 resulted in only 8 of the twin lambs dying (some 2% of the population), four in each of the halves of Oaktree Meadow - clearly there is no statistical significance to these data whatsoever. (Chilling/starvation losses 'in the field' in preceeding seasons were 32%, 17%, 17% and 7% in 1979, 78, 77 and 76 respectively).
Of interest though, was the observation of the reaction of the ewes to the shelters: sheep with early access to the field shelters established territorial dominance around adjacent parts of the shelter so that eventually some 90% of the hundred ewes were not able to benefit from any shelter that might have been afforded.

These observations suggest that a number of field shelters of limited size are likely to be of more value than a few more-extensive shelters (for other comments see 'Shelter for stock' in Starr 1982). It should be noted that these simple field shelters would have provided little protection from rainfall; it is the wetted coat that is regarded as providing the significant channel for heat loss.

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Any comments or suggestions on this paper should be referred to the author.

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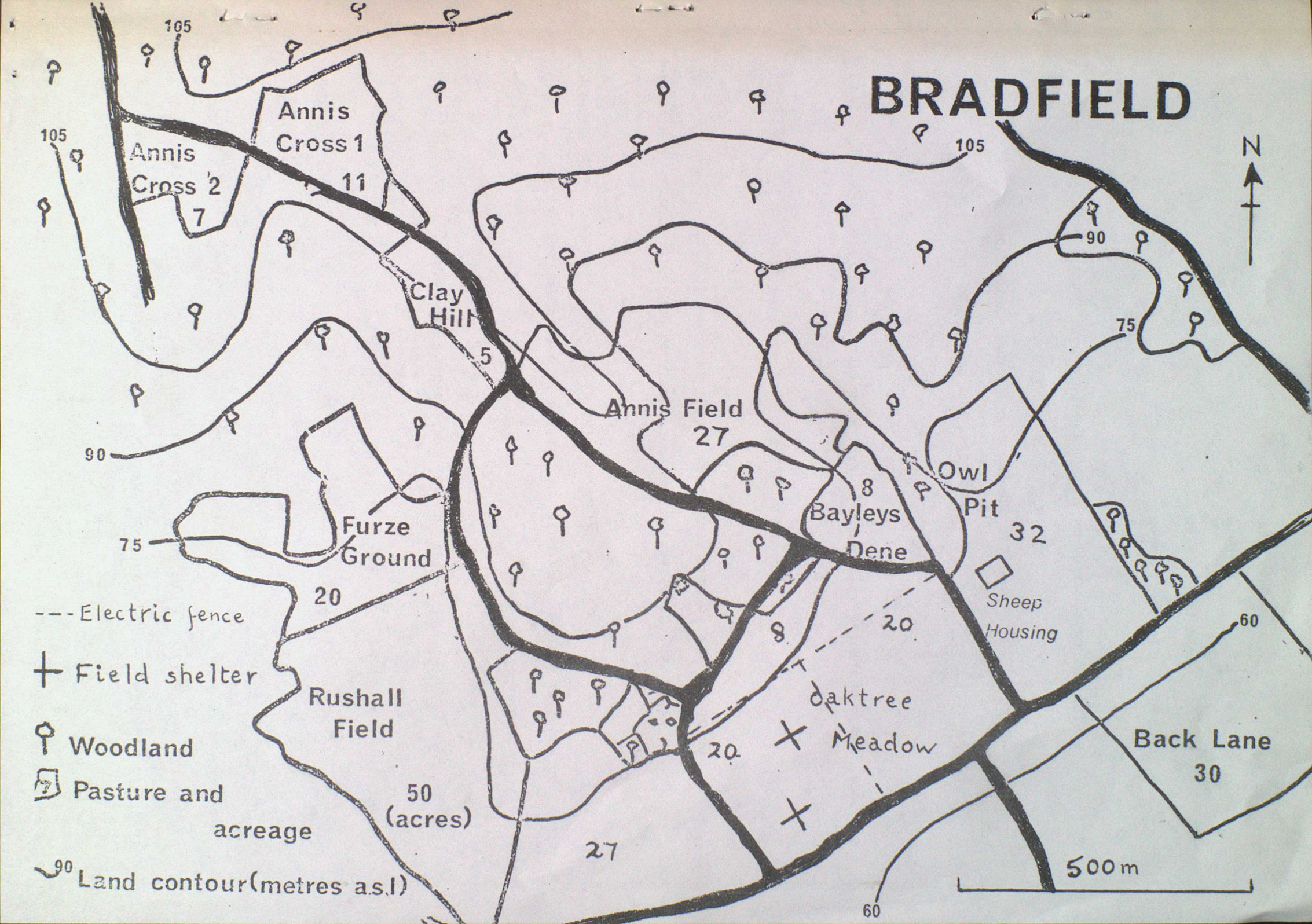
BRADFIELD
N
105
Annis Cross 1
11
Annis Cross 2
7
105
105
90
75
Clay Hill
5
Annis Field
27
90
Furze Ground
20
75
8
Bayleys Dene
Owl Pit
32
Sheep Housing
60
8
20
oaktree
Meadow
20
Rushall Field
50 (acres)
27
Back Lane
30
60
500m
--- Electric fence
Field shelter
Woodland
Pasture and acreage
90 Land contour (metres a.s.l)